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AUTHOR Nguchu, Ruth Rukunga
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ABSTRACT

This study surveyed parents, headmasters, and home economics teachers from 12 primary schools in Nairobi to collect information on the extent of radio use in home economics teaching, the reasons for use or non-use, and parental attitudes toward educational radio programs in general. Upper primary (standard 4-7) home economics teachers completed a questionnaire, while information from headmasters and parents was gathered through interviews and discussions. Results based on a small sample show that few schools used home economics radio lessons and that home economics is not even taught at some schools. Many teachers trained to use radio lessons are not using the programs, and some are unaware of the programs' existence. Survey results indicate a need for more broadcast and program materials, slower program pacing, audiotapes of the programs, teacher inservice training, more radio receiving equipment, and more home economics classrooms. Conclusions suggest that additional research on the original questions concerning radio use and non-use is needed. A sample radio script on cleaning of rooms and a copy of the questionnaire for home science teachers are appended. (LMM)

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No. 30

RUTH RUKUNGA NGUCHU:

THE EXTENT TO WHICH RADIO IS USED IN TEACHING OF HOME SCIENCE IN URBAN PRIMARY SCHOOLS IN KENYA

IR010429

AGG Project
GTZ, Att. Peter Sachsenmeier
P.O.Box 54815, Nairobi

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CONTENTS. PAGE.

ACKNOWLEDGEMENT (i)

LIST OF TABLES (ii)

CHAPTER 1: INTRODUCTION: ---------- 1

1.1 - Background to the study ---------- 1

1.2 - The use of Home Science radio programmes in schools -------- 6

1.3 - Objectives of the study ---------- 8

1.4 - Explanation of Key terms. ----------10

CHAPTER II DESIGN AND METHODOLOGY ----------11

2.1 - The Population ----------11

2.2 - Instruments and methods ----------14

2.3 - Data Analysis ----------16

CHAPTER III FINDINGS ----------17

3.1 - The use of radio in teaching Home Science. ----------17

3.2 - Reasons for use and non-use of Home Science radio programmes. -18

3.5 - Summary of the findings. ----------24

CHAPTER IV: RECOMMENDATIONS. ----------25

4.1 - From the target population. ------ 25

4.2 - From the study. ----------26

APPENDIX I - SAMPLE OF A HOME SCIENCE RADIO LESSON;--29

II - THE QUESTIONAIRE ----------36

BIBLIOGRAPHY ----------42.

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R. Nguchu.

LIST OF TABLES.

I: : Sample Schools; name, 'former' category and Division.

II: : List of instruments and information solicited from various target groups.

III: : Use of Home Science radio lessons in the 3 categories of Primary Schools in Nairobi.

IV: : Reasons for using Home Science radio lesson.

V: : Reasons for not using Home Science radio lessons.

VI: : Parental attitude towards radio lessons in general.

CHAPTER I:

1. INTRODUCTION.

1.1 BACKGROUND TO THE STUDY.

With the advance in technology, and the desire for every country to keep abreast with the latest developments within itself and outside, efficient communication has become a very important aspect of the society. This takes place at all levels between people and institutions, and flows through many channels both inter - personal and mediated. In Kenya, the radio has for a long time been one of the important means of passing on information, directives or decrees from the legislators to the general public. It has also been used alongside other forms of mass media such as newspapers, films, television etc. to educate, animate and entertain the people. Thus mass media in a way has been a cheaper and more efficient way of passing on information from the few to the many compared with the traditional method of word of mouth.

Prior to independence in June 1963, radio did not feature very much as an important tool in the curriculum. This could possibly be explained by the fact that the enrolment in the African primary schools wasn't as high as observed in later years. Therefore according to the colonialists, the teachers trained after eight years of primary education were just right for the African child. In any case, the European child had his own academic type of education and since the African needed just enough practical skills that will keep him in his third place within the society, there was no need of trying to improve his curriculum nor the rote kind of teaching methods. Thus, the radio remained largely uninvolved in the formal school curriculum until in 1963, when the then Kenya Broadcasting Corporation started a division called "Schools Broadcasting Division" Later on in 1965, this Division was taken over by the then Ministry of Education. However, the functions of this division remained purely of those of producing radio programmes for schools.

This takeover from the corporation was mainly engineered by a number of factors as explained in the next paragraph.

Immediately after independence in (1963), the government set up a commission under the chairmanship of Professor S.H. Ominde to look into ways and means of improving the quality of Education in post - independent Kenya. The Commission made far reaching recommendations ranging from racial intergration in schools, unifying the curriculer, removal of element of failure after Primary education by awarding certificates of perfomance, to improve in the training of teachers and teaching methods. On the quality of primary school teachers, the Ominde Commission had this to say,

> "——— recent setbacks in teaching methods may be due more to general deterioration in qualifications of primary teachers. But there are good teachers around who have the gift of understanding the requirements of good teaching, too few of them certainly, but their kind is not wholly lacking".1

Certainly from this statement, it is obvious that the commission realised that something was wrong in the past methods of training teachers and secondly, action had to be taken to ensure that the expertise of the few good teachers was used to the benefit of the children. This situation had been brought out mostly by the fact that teachers were trained in 37 primary teachers Colleges owned by government and religious bodies and therefore there was no uniformity in curricular, methods etc. In the absence of these and any form of centralised examination, the standards varied from College to College. Therefore, later on in the middle sixties, the government had to take over these colleges, reduce them to the present 17 in number and draw a centralised curriculum for all. In addition, radio featured prominently in the in-service courses for teachers. This was possible as teacher training was under full control of the central government and so was the schools broadcasting

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1 - Kenya Education
Commission Report, Part I 1964. Page. 49.

division which was used to support the official curriculum.

Another problem which was later tackled more effectively by the radio programmes in later years, was the soaring number of untrained teachers recruited as a result of influx in school enrolment immediately after independence. The magnitude of this problem is expressed in the Ominde Commissions statement below:-

> " —— The first noticeable fact is the large number of unqualified teachers which amounts to about 30% of the total teaching force. For want of training, unqualified teachers tend to teach as they themselves were taught and inview of the rapid strides being made in teaching techniques, that means they reproduce out-dated rote methods of teaching ——————"2

The end product of such a situation is as the report put it:-

> "the negative influence on the newly qualified teachers, trained in up - to - date methods."3

In reaction to the above, the government started in-service courses in 1966 for un-trained teachers which initially lasted 2 years, at the end of which the trainees sat a college examination and were awarded a certificate. The nature of the course was such that time was divided between Correspondence Courses, radio to support the latter and one month residential course during the school holidays. Later on in 1968, these courses were made 4 years with the same three components at the end of which a certificate was awarded on passing centrally set teacher examination. These in-service courses were dropped in 1976 but the government is re-introducing them again hopefully from next year (1982) but each course will be 3 years in duration. This proposed course will consist as before of correspondence, radio and residential components.

Sharing the Kenya's sentiments about the correlation between teachers'

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2 - Kenya Education Commision Report. Part I 1964 Page 49.

3 - Ibid. Page 49.

training and the quality of instruction is Professor Beeby who observes that:-

> "there is close relationship between teachers' training and education, to the type of schools that exist at different levels of development. If teachers are little educated and trained, schooling consists little more than mechanical drill on the three Rs and memorising of meaningless items"4

This in most cases means that:

> "----- teaching is more systematic, the curriculum is fixed and centrally determined, instruction is policed by inspectors and external examinations, but the students still learn mostly by rote"5

Thus this being the case at independence where teachers were trained after standard seven or eight and expected to teach up to the same level, the quality of education was bound to suffer.

In the face of these two major obstacles (i.e. few good teachers) and masses of unqualified teachers, the Ominde Commission commended strongly the use of radio in improving the quality of Education. The following exerpt is lifted for the Commission's report:-

> "The radio provides a wonderful means of bringing the outside world into the school in a way never before possible. Other parts of Kenya, hitherto remote and almost unknown come to life over the radio and lessons based on such material are much more significant and real than lessons relying entirely on the imagination of the teacher. We regard the school radio as a valuable teaching aid and we would welcome an extention of its use."6

The Commission however made it clear that

> "radio was not a subtitute for the teacher but constituted a great deal in reinforcing the work of teachers; particularly those who had limited basic education."7

From the above paragraphs, it is quite clear that to use the radio as effectively

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4 - C.E. Beeby, 'The quality of Education in developing countries, Havard University Press. 1966.

5 - New Media, Memo to Education Planners UNESCO 11Ep 1967.

6 and 7 - Kenya Education Commission Report, 1964, Part I page 63.

as possible, there was need to put the Schools Broadcasting division under the Ministry of Education as mentioned earlier.

After the take-over of the School Broadcasting division in 1965, its functions remained purely those of producing radio broadcasts for primary schools in all subjects and also for un-trained teachers to support the correspondence courses. However, in 1975, the Visual Section was established within the division. A year later in 1976, the division was merged with the Kenya Institute of Education (K.I.E.) and the name changed to Education Media Service (E.M.S.), E.M.S. under K.I.E. has continued to service the the curriculum divisions interms of materials and expertise. Under its present form, E.M.S. has two major objectives:-

(a) "To design, develop and produce multi-media curriculum packages and disseminate educational materials to schools, teachers' colleges, vocational and non-formal audiences and the general public.

(b) "To conduct in-service courses, workshops and seminars for teachers, education officers and inspectors in the utilisation of the multi - media curriculum packages; and to be involved with other agencies in the inservicing of non-formal educators."8

To achieve these objectives, E.M.S. has six major sections each with its specific tasks. These sections are as follows:-

(1) Audio Section (Radio and Tape).

(2) Visual Section.

(3) Dissemination and Utilisation Section.

(4) Materials design section.

(5) Technical Services.

(6) Library Services.

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8 - Recommendations for manpower development, selection and promotion for T.S.C. employed staff of E.M.S. by R. Thompson, head E.M.S. division.

All these sections work together to produce and disseminate multi - media curriculum material to support the official syllabii.

1.2. THE USE OF HOME SCIENCE RADIO PROGRAMMES IN SCHOOLS.

From the previous literature review, it has become apparent that audio - visual aids play a very important role in improving the quality of education. They provide by and large, means of presenting locally produced material for educational and development purposes without requiring costly and complicated distribution networks. Radio in particular has been very useful in tapping the expertise of a few good teachers for the benefit of the many. In the non-formal scene, radio has been used to solve national problems relating to health, food production, literacy etc. Thus by using the radio, Kenya government is trying to utilise the available meagre resources both human and material more efficiently and extensively. Expertise being one of the meagre human resources,

> "---- radio programmes are intended among others to provide the teacher with added dimensions to his own teaching; to bring experts into the classroom situation; to bring in the atmosphere of time or place; to extend the teachers' own work with material presented in a different way; and to provoke interest by providing a change in the teachers' own voice."9

Thus with this in mind, the objectives of the Radio (Audio) Section of E.M.S. are:-

(i) "to facilitate education of the target audiences in those aspects of the relevant curricular - objectives that are best achieved by audio - visual media.

(ii) to provide stimulating and motivating experiences which awaken interest and

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9 - Education media service catalogue 1977/78, K.I.E.

invigofate the imagination of viewers and listeners hence enlivening the learning conditions and processes.

(iii) to provide inaccessible expertise cheaply to target audiences.

(iv) to develop observation, listening and visualisation skills to facilitate development of ideas and practices.

(v) to illustrate desirable classroom methodology for imparting curriculum knowledge."10

From the above, it is quite clear that the radio programmes are not only concerned with imparting knowledge, but also skills and attitudes for effective learning.

In order to achieve these objectives, alot of thought and effort are put in the preparation of these radio programmes. (A format for these programmes is appendixed.)

In the case of Home Science, the radio programmes are only confined to areas that are theoretical; and it is hoped that the practical bits are emphasised by the class teacher. Home Science being mainly a practical subject, the programme producer (who is both a subject and media expert) must be very careful in selecting the material to go into the radio. Therefore, Home Science programmes are usually 20 minutes in duration for Upper Primary (standard 4-7) classes. Since alot of literature review is done before writing the script, these programmes are mean't to provide additional information to the teacher as well as presenting content in an interesting and thought provoking manner. Whether these Home Science programmes have measured up to the objectives of audio section and teachers' expectations will be seen in the findings of this survey.

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10 - R. Thompson, " Recommendations for Manpower development, selection and promotion of T.S.C. Employed staff. June 1981.

1.3. OBJECTIVES OF THE STUDY.

In the previous paragraphs the merits of the radio programmes have been highlighted. However, being a one - way kind of communication, radio has its own problems. For instance, there is no direct pupil - teacher interaction, no feedback to the radio teacher on whether the lesson has been understood or not, only one sense is utilised in learning etc. In addition, the ghost of C.P.E. is forever looming over the children. Due to its competitive nature, only about 30% manage to get into government aided secondary schools. The rest of the standard 7 leavers fall back into a severely competitive labour market with little or no hope of ever securing a job. Alot of parents in Nairobi are aware of this and therefore put alot of pressure on the teachers inorder to getthe best C.P.E results. As such, it has not been uncommon for a headteacher to earn promotion or demotion as a result of C.P.E. perfomance. This being the situation, some heads of primary schools in Nairobi tend to resent any kind of interference, be it inform of radio lessons, projects etc. within their schools. Although no survey has yet been done on the use of radio in teaching Home Science so far, the laxity in the use of these programmes has been portrayed by almost total non-use of the tape-copying service although such services are rendered to schools free of charge. Secondly, since Home Science is not an examinable subject at C.P.E level, there is a likelihood that the radio programmes might not be listened to at all.

Thirdly, there is need to get feedback from teachers on the usefulness of these Home Science radio programmes.. Such information is rarely forthcoming from the teachers. Such need is also reiterated in the British Journal of education as exemplified in this statement:-

> " education broadcasting is a kind of partnership between the teacher and producer and must extend beyond the transmission of materials and publication of teachers' notes and pupils' packages."11

11- British Journal of In-service Education, autumn 1975.

With this in mind, the study is first and foremost aimed primarily at finding out how many schools in Nairobi use Home Science radio programmes and how often.

Secondly, it is aimed at finding out the reasons for use or non - use of these programmes as the information elicited will be very useful for future programmes production.

1.4. EXPLANATION OF KEY TERMS.

(i) E.M.S. - - Education Media Service.

(ii) Home Science - A term which is used to refer to Home Economics. At the primary school level, it covers Food & Nutrition, Clothing and Textiles and Home Management.

(iii) Standard - Level of education. A term used to refer to grade 1-7 of primary education.

(iv) C.P.E. - Certificate of Primary Education a selection examination administered at the end of standard seven for entry into secondary schools.

(v) UTs - Un-trained teachers.

(vi) Producer - The media specialist. Also a subject specialist.

(vii) Scriptwriter - The researcher (usually a subject specialist) who compiles information on the topic and then writes a script under the direction of the producer.

(VIII) FX - Means sound effect (see programme). i.e. use of sound to bring out the theme e.g. if a programme is on child care, FX could consist of baby crying lullaby, noices from play materials etc.

(ix) R.T. -Radio Teacher.

(x) Division - Administrative zones, in each division, there is a school adviser. A division adviser is equivalent to a district education officer.

(xi) Ominde Report - Refers to the Kenya Education Report of 1964 chaired by Professor Ominde. The recommendations of this report have governed education development in Kenya from Independence up to present day.

(xii) Gachathi Report - Refers to "The National Committee on Educational Objectives and policies, December 1976, chaired by the then Permanent Secretary Ministry of Education.

2.1. POPULATION .

2.1.1. The School.

Due to financial and time constraints, this study was done in Nairobi Schools only. 12 Primary Schools were randomly selected out of a total of 125 primary schools in Nairobi. These 12 schools were selected as follows:-

(i) a list of divisions under which all city council schools fall was got from the city Education Office. Thase were namely: Central, Eastern, Western, Northern and Sourthern divisions.
Out of these 5 divisions there are at least 20 schools. All these schools are in either of the three main categories namely 'A', 'B', or 'C'. The 'A' category schools are former African primary schools, 'B' former Asian schools and 'C' former European schools. Therefore the categorisation is based on their historical origin before racial intergration was enacted in all the Primary schools in the republic. Attempts to get the actual numbers in each category were fruitless because the city education office insisted that such categorisation is null and void because racial intergration has been fully achieved in all the schools. Therefore I was directed to use the word 'former' before the word category when referring to these schools. However, during the study, it was quite obvious that the 'former' category C schools had better facilities than 'B' and 'A'. Looking at C.P.E results for last year (1980) the same trend was very evident with the 'C' schools performing better than 'B' and 'B' better than 'A'. In addition, the school fee structure is different with 'C' paying 143 Ksh. p.a. per child 'B' and 'A' 60 Ksh. p.a. When querried on this disparity in fee structure, I was informed that this partly went into maintaing some of the infrastructures established

long before in the schools such as swimming pools, tennis courts etc. Such extra facilities are almost non-existent in category 'A' schools. Taking all these disparities into account, 10 schools ~~such as~~ were selected from known category 'C' schools, 10 from 'B' and 20 from the 'A' schools.

(ii) Out of these, random samples were selected such that I ended up with 3 schools from category 'C', 4 from 'B' and 5 from 'A'. Obviously there are almost five times as many category 'A' schools than 'B' and 'C', going by rough estimates since the city education officials declined to give the actual figures, and to get this a more thorough survey has to be done which is beyond the scope of this study.

Therefore, a total of 12 schools was selected out of the 125 schools in Nairobi. These 12 schools it was felt, represented first and foremost the three major categories of schools in Nairobi with their varying facilities and parental aspirations etc. Secondly, it was felt that the sample represented the 5 major administrative divisions. However, the researcher feels that if there was more time and enough finance, all the schools could have been visited and hence a more representative picture would have been got. This was also the feeling of the city education officials.

However, the following schools were sampled out:

TABLE I (SAMPLE SCHOOLS)

NAME OF SCHOOL	'FORMER' CATEGORY	DIVISION
1. Mbagathi Road Primary School	A	Central
2. Moi Avenue " "	B	Central
3. Murang'a Road " "	B	Central
4. River Bank " "	B	Central
5. Nairobi " "	C	Central
6. Kariobangi South " "	A	Northern
7. City " "	B	Western
8. Dr. Livingstone " "	A	Eastern
9. St John " "	A	Eastern
10. Huthaiga " "	C	Northern
11. Jamhuri Estate " "	A	Sourthern
12. Kilimani " "	C	Sourthen

2.1.2. The Target groups.

In order to find out whether the above schools use radio lessons for teaching Home Science, and if not, the reasons for not doing so, the following target groups were selected:-

(i) Home Science teachers (std. 4-7)

- These are the people directly involved in ensuring that these radio lessons are schemed for and listened to.

(ii) Headmasters

- The headteachers have a key role in implementing curricular materials including radio lessons. Their attitudes towards particular subjects or radio easily filters through to teachers and influences their teaching. In addition, they ensure that curricular and radio materials are received

in time from the school equipment scheme. For Home Science and any other radio lesson, this would include radio time tables, teachers' notes, radios, batteries, speakers etc. Therefore they determine to a large extent whether radio lessons will be used in the school or not.

(iii) Parents.

- The parents in most category and C Schools are very powerful indeed. This is so because most of them are literate and have their own aspirations for their children. Therefore their influence on the performance at C.P.E level is quite substantial. Therefore, it was interesting to find out their feelings towards Home Science radio lessons considering the fact that Home Science is not an examinable subject at C.P.E.

2.2. INSTUMENTS AND METHODS.

Questionaire, interviews and discussions were the major tools used in this study.

TABLE II

Table showing the instrument, target group and a Summary of information sought.

Instrument	Target Group	Information elicited on
Questionaire	Home Science Teachers. (std. 4-7)	(a) Background information on School. (b) use of radio in teaching Home Science. (c) reasons for use or non-use of Home Science radio programmes. (d) future recommendations on these programmes.
Interviews & discussions.	(i) Headmasters (ii) Parents	Mainly on use or non-use of Home Science radio lessons. Parental feelings towards use of radio in schools.

As for getting information from the teachers, some discussions were held after filling in the questionaires.

There was no questionaire for head-teachers and parents. However, discussions were held with the head-teachers after the teachers had filled the questionaire mainly concerning merits and demerits of teaching through the radio. Whatever then applied to Home Science was extracted.

For parents, the discussions were held informally either in their houses, in town and during parent-teacher association meeting which happened to take place in one school where I am a parent. Certainly this was the most difficult group to get and interview.

3.3. DATA ANALYSIS

Questions were categorised on whether they are related to:-

(i) use of radio for teaching Home Science.

(ii) reasons for use or non-use of these programmes.

(iii) recommendations for improvement of future programmes.

(iv) parental attitude towards radio programmes in general.

NOTE: Where different target groups responded to the same question e.g. teachers and headteachers, the responses were compiled as if they were received from a single population. Frequencies of various responses on the questions were arrived at and percentages calculated.

C H A P T E R 3.

3. THE FINDINGS.

3.1. THE USE OF RADIO IN TEACHING HOME SCIENCE IN SCHOOLS.

From the information given by the teachers and headteachers, Home Science radio programmes in the past one year and this year are only broadcast for standard six. This was probably so because as from 1979 to June 1981, there was no Home Science media specialist. Therefore no programme production inevitably fell. Therefore the questionaires were administered to std 6 teachers only but the general discussion was held for all upper primary school teachers. Therefore, at least a total of 45 teachers filled in the questionaire; or were involved in the discussion. Only 4 from one category C school did not respond as Home Science as a subject was not in their time table. The reason given for not teaching the subject at all was that there isn't enough time to cover other more important subjects like English and Maths let alone teaching Home Science which is not an examinable subject.

Table III shows the extent to which Home Science radio lessons are used in the various categories of Primary schools in Nairobi.

TABLE III:

Use of Home Science radio lessons in the 3 categories of Primary schools in Nairobi.

Response.	Frequency			%
	'A'	'B'	'C'	
1. Uses every time they are in the air	-	1	0	8%
2. Occassionally	2	-	-	16%
3. Seldom	-	-	-	-
4. Never	3	3	3	75%

From the above table, it is quite clear that none of the category 'A' and 'C' schools used Home Science radio programmes, whenever they were in the air. Only 1 category B school out of the 12 schools visited used Home Science radio lessons regularly.

Apparently, majority of schools (about 75%) in all the 3 categories do not use the radio lessons at all. This situation might be attributed to a number of factors, some of which have already been mentioned. These factors are explained further in the next table. However, the main reasons given in category 'A' and some 'B' schools were ranging from lack of speakers and therefore cannot effectively use radio for 3 streams, to lack of cells etc. In category C schools, no one used the radio lessons in any subject.

With this large number of non-users, it was not possible to get enough information on other parts of the questionaire; especially those parts dealing with the quality of the programmes. However, some of the teachers mentioned that they had used radio programmes in the past and therefore could comment on the problems encountered with the use of radio from their previous experiences.

One of the surprising findings is that Home Science is not taught as a subject at all in some schools and therefore one would not expect such schools to listen to Home Science programmes.

Seeing the kind of problems programmes related to Home Science face, I think there is a strong case for educating the teachers and headteachers on the value of Home Science in solving some of the real life problems such as unemployment, family welfare etc.

The next table (Table IV) looks at reasons for using Home Science radio lessons.

TABLE IV

3.2. Reasons for using Home Science Radio lessons.

Response	Frequency (in Categories)		
	A	B	C
1. Improves on teaching techniques	2	-	-
2. helps one to explain better.	3	4	-
3. Radio lessons are interesting to the children	10	-	-

The above table refers to individual teachers feelings on the importance of Home Science radio lessons. Out of the total number of 45 teachers in the 12 schools visited (from the three categories), 15 teachers from category A and 4 from 'B' found these lessons useful. None filled this section from category C.

As can be seen from above, quite a large number of teachers used Home Science radio lessons because of response (2) and (3) above.

3.3.

TABLE V

Reasons for not using Home Science Radio Programmes.

Response	Frequency (Categories)			Percentage
	A	B	C	%
1. Classes are combined and therefore too large.	3	-	-	25 %
2. Home Science not taught at all	-	1	3/2	33%
3. Radio available but speakers were stolen from the classrooms.	3	2	-	42%
4. No radio at all or radio broken down.	1	-	-	8%
5. No batteries.	-	1	-	8%
6. Radio lessons are uninteresting.	-	2		13%
7. Not aware that there are Home Science radio broadcasts.	-	1	1	13%
8. Not quite sure on how to use these broadcasts.	5	1	-	50%
9. New teacher and therefore I dont know why Home Science broadcasts are not used.	1	2	2	41%
10. Only 2 periods per week for Home Science and therefore cannot fit it into the scheme of work.	3	2	-	41%
11. Need more information on Home Science radio broadcasts.	4	2	3	75%

The percentages refer to gross numbers of schools interviewed, since most of the teachers from one school tended to give the same response on this part of the questionaire. The reasons for non-use of the programmes are listed under the response column.

From the responses given, it shows that the greatest stumbling blocks to Home Science radio programmes are:-

(i) unawareness of the existence of Home Science radio programmes which constitutes 75% of schools visited.

(ii) lack of knowledge on how to use radio lessons (50%)

(iii) lack of radios or speakers (42%)

(iv) lack of interest in Home Science as a subject as shown by responses (2) and (9).

It seems from the responses given that K.I.E., inconjuction with E.M.S. plus inspectorate, should first and foremost ensure that all headteachers and other educators are educated on the importance of Home Science as a subject in the curriculum and why it should be taught to all school children. This is even more so with the present emphasis on practical skills that will enable the primary school leaver to cope with the world of work. Secondly, E.M.S. should inform the teachers about Home Science radio programmes and how they fit in with the syllabuses. For this to be effective in-service courses should be held for all Home Science teachers and head-teachers on how to use these Home Science radio lessons. The need for such a course is justified by the fact that all the teachers interviewed agreed that such a course is essential.

TABLE VI

3.4. Parental attitude towards radio lessons in general.

Response	Frequency in categories			Percentage.
	'A'	'B'	'C'	
1. Useful	-	2	1	20%
2. Not useful	-	-	-	0%
3. Don't know	4	3	5	80%

Out of the 15 parents interviewed informally, 20% of them agreed that the radio programmes are useful, and 80% said they did not know about them. According to the 80% group, they said that as long as the programmes would help their children perform better in C.P.E., then they were useful. Therefore, it is quite clear that C.P.E. has a big influence on the acceptance of any programmes in schools. Secondly, there is a clear need for parents to be informed of what goes on in school though parents - teacher associations.

Maybe in a rural setting, the responses would have been different considering the fact that parents in Nairobi are more informed about what is going on in schools than their counterparts in the rural areas. However, most of the parents who regarded these programmes as useful were both parents as well as teachers. However, in response to question (15) of the questionaire concerning the same, only 2 teachers out of the total number of users said the programmes were not useful at all.

99% of teachers interviewed recommended that these programmes be taped alongside the broadcasts and sent to schools. The taped material would enable the teachers to fit them appropriately in their lesson plans and would also minimise some of the problems encountered with broadcasts such as poor reception, broken down radios etc.

In addition, the teachers can re-play the programme when need be.

3.5. SUMMARY OF THE FINDINGS.

From the questionaires, interviews and discussions held in the course of this study, the following information has been found out:-

3.5.1. Very few schools in Nairobi use radio lessons in teaching Home Science. This applies to all the three 'former' categories. (i.e. A,B, and C) However, this practice is more common in category C than the other categories.

3.5.2. Home Science is not taught even as a subject in some Category 'C' Schools.

3.5.3. Alot of teachers though trained on how to use radio lessons are not using these programmes.

3.5.4. Some teachers are not aware of Home Science radio programmes. (This is partly the mistakedof E.M.S. as the production of Home Science programmes has been of late confined to std.6 only. Whereas in the past it was for stds. 4,5,6, and 7. like all other subjects.)

3.5.5. There is need for more support material for teaching Home Science plus a massive campaign on the usefulnes of Home Science as a subject within the curriculum. Therefore an in-service course on the above and how to use radio lessons is long overdue.

CHAPTER 4.

4.1. RECOMMENDATIONS FROM THE TARGET POPULATION.

4.1.1. Broadcast materials for all subjects should be sent to schools in time. These include teachers' guides or notes, time-tables, charts etc.

4.1.2. There should be Home Science radio programmes for standards 4, 5 and 7 like all other subjects.

4.1.3. The radio teacher for Home Science standard six is often too fast and should give the children more time to answer questions, and carry out the activities etc.

4.1.4. Programmes for Home Science and other subjects should be taped and sent to schools alongside the broadcasts. Some felt that money spent on broadcasts should be used to buy tapes and tape all the radio lessons and then send them to schools.

4.1.5. An in-service course on the functions and use of radio lessons should be held for all subjects.

4.1.6. All head-teachers should be educated on the importance of Home Science, in the curriculum.

4.1.7 More teaching-Learning aids for Home Science should be produced by K.I.E. and sent to schools.

4.1.8 The Inspectorate should be informed of the need to have a Home Science room in the school. (most of schools visited did not have them).

4.1.9. Enough radios and cells should be provided or speakers installed in the classroom. K.I.E. should pressurise Kenya Shools Equipment Scheme on this issue.

4.2. RECOMMENDATIONS FROM THE STUDY.

It is quite clear from the preceding chapters that Home Science radio programmes plus Home Science as a subject has not been given the emphasis it deserves in the schools. Although this pilot study was done in urban schools where one whould expect all schools to be in a position to tackle most of the subjects due to the fact that they have enough qualified teachers and reasonably good facilities for teaching compared with their rural counterparts, the results have highlighted a number of problems which are likely to be nationwide. Obviously, Home Science has had its share of problems mostly based on negative attitudes inculcated earlier on in the colonial era as exemplified in the phelps - stokes commision of 1925. The report stated:-

> "Just as handiwork had been found useful in the training of the mentally defective children, so the most useful training which the African can receive at his present condition is continued contact with the material processes."1

This and other such statements were seen as degrading to the African and meant to keep him forever in the low social order. However, later on the image of Home Science as a third grade subject started changing though somewhat slowly. This came along with independence and the recommendations of the Ominde Commission. The Commission observed one important point that

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6 1 - Raju B.M. Education in Kenya; problems and perspectives educational planning and administration Heinemann, p.3.

has loomed over the practical subjects up to day. The report had this to say.

> " The difficulty in Kenya stems from the popular undervaluation of manual crafts as an element in education and in life."2

Therefore, the commission recommended that:-

> "teachers of crafts should enjoy the same status as others. They should be specialists in their own right. The training of such teachers should be encouraged."3.

Realising this same poor attitude towards Home Science, when the 'Kenya National Commitee on Education Objectives and Priorities chaired by P. Gachathi was formed in late 1975, to review education after a decade of independence, it had this to recommend concerning Home Science.

> " there is need to intergrate education and training with the local environment and to strengthen the teaching of agriculture and Home Science by making their scientific principles an examinable subject".4

The commission had also this to add infavour of Home science,

> " There is need to give increasing weight to mathematics, science, language —— music, home sciences and agricultural sciences in the recruitment of students for training as teachers."5

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2 - (Ominde S.H. - Chairman), Kenyan Education Commission Report. Part I. Nairobi, G.P.O. 1964, pg 81.

3 - Kenya Education Commission Report Part I.

4 & 5 - Gachathi Report pg 37.

Despite all these recommendations, it seems that alot of teachers are still bent on these undesirable attitudes towards Home Economics. In the process, the efforts interms of time spent on production of radio programmes have apparently gone down the drain. Therefore, from the aforesaid, the following is recommended:-

4.21. The recommendations of the target population be implemented by by both K.I.E. and inspectorate as important arms of the Ministry of Basic Education.

4.2.2. E.M.S. should re-assess and possibly re-cast its radio programmes to ensure that they provide more than what the classroom teacher can do. This will make the programmes more effective.

4.2.3. There should be a deliberate attempt on the part of E.M.S to inform parents and the public on the importance of these radio programmes otherwise they should think of other alternative methods of reaching the target groups e.g. inform of taped material etc.

4.2.4. Home Science should be taught as a subject on its own and examined at C.P.E. level. Maybe this will make teachers give it more attention.

4.2.5. A more thorough survey should be done to find out how many schools in the country benefit from these radio lessons and for those who do not make proper use of them, reasons must be found why they do not. In the process, other avenues for transmitting information to all schools, should be found other than just the radio. At the same time, E.M.S. should find a way of getting feedback from the programme consumers regularly.

4.2.6. Finally, the researcher wishes to inform the reader that this small scale survey does not reflect on the practice all over the country. Considering the fact that there are no un-trained teachers in Nairobi, the picture painted by the survey might have been different if this survey was done in the rural schools of Kenya where the number of un-trained teachers is quite substantial.

APPENDIX I.

SAMPLE OF A HOME SCIENCE RADIO PROGRAMME.

EDUCATIONAL MEDIA SERVICE

SERIES TITLE:	HOME SCIENCE
PROGRAMME NO.:	3
PROGRAMME TITLE:	Cleaning of Rooms
PROGRAMME LEVEL	std 5
SCRIPT WRITER	Mrs Damaris Mworia
PRODUCER:	Mrs A. Nturibi
DURATION:	20 min.
RECORDING DATE:	-
TRANSMISSION DATE:	-

CAST	Announcer	- Male
	Radio Teacher	-Male
	Mama Lilian	- Female
	Baaba Lilian	- Male
	Lilian	- Female
	Antony	- Male
	Mutiso - Home Helper	- Male

Sound Effect	- Music
	Moving

Sign Tune	10' & fade under.

Announcer: This is our third radio lesson on Home Science series for std 5. The lesson today is "cleaning of rooms", Last week we learnt about the family wash and how organisation of

in every stage of the family wash. In today's lesson we shall learn how cleaning of rooms can be organised to ensure that every room is cleaned.

FX: (sound effect) Introductory music

R.T:(Radio Teacher) Cleaning of rooms may be grouped under 3 headings:-

a) Daily cleaning

b) Weekly cleaning

c) Thorough or special cleaning.

Daily cleaning means removing the surface dirt and dust in every room in the house. i.e. tiding the rooms, straightening papers and books, replacing flowers or rearranging them, giving them fresh water, airing the rooms, making beds if in a bedroom, washing sinks if in a kitchen etc.

Weekly Cleaning means that each room should be well cleaned in order to care for the building and each piece of furniture e.g. Walls swept furniture polished, windows cleaned, beds changed and made thoroughly, floors washed and polished, metals cleaned etc.

Thorough or special cleaning once a month or so a thorough or special cleaning is necessary e.g. cushion covers, curtains and other furnishings need washing, cupboards and drawers need cleaning, paint work needs washing.

These are those bits which do not need to be attended daily or weekly.

These three groups have to be planned together sensibly so that the house is clean and the housewife or house helper is not exhausted by doing all the heavy cleaning in one day.

FX: Music.

R.T.: The cleaning of rooms in the house vary greatly depending on the use of the room. For example, the daily cleaning of the sitting room involves quite a lot. That is removing floor rugs, floor mats, puts them outside the room, collect ornaments and covers them on a tray; clean fire place and lay the firewood (if any) sweep the floor, dust every where, tidy papers and books on the shelf, shake cushion and chair covers outside, brush mats and furniture, dust ornaments and arrange them back in their places, attend to flowers, airing the room and replacing the cleaning equipment to their proper places.

FX: Movement of the furniture.

R.T.: In the bedroom, daily cleaning involves sweeping and dusting as that of the sitting room and making the bed, brushing mats and furniture, tiding clothes in the wardrobe. etc.

(pause)

In the kitchen there is sweeping and dusting followed by wiping of the cooker, scrubbing wood surface e.g. working table; cleaning of the fire place (if any) tiding food store, and emptying and washing the waste bin.

In the bathroom, sweeping and dusting followed by cleaning of the wash basin, cleaning and flushing the toilet and disinfecting it with a good disinfectant, cleaning the shelves and washing the floor if it is necessary.

FX — Music

R.T.: Mama Lilian comments to Mutiso, the house helper on the bad condition of the house. The children, Lilian and Antony also mention those parts of the house that are very dirty.

Mother: Mutiso, the last few weeks, I've been so busy that I did not get the time to check on the general cleanliness of the house.

Mutiso: What do you mean Mama Lilian?

Mother: I mean to check on the hidden corners of the house. today, I happened to have been looking for something which I have missed for sometime.

Mutiso: Did you get it at last Mama Lilian?

Mother: No I didn't. I checked under the beds and behind the cupboards, in the drawers, whereas I discovered that they are so untidy that one cannot get anything.

Mutiso: I think I cleaned and arranged them last week, mama Lilian.

Mother: No! That can't be. They are terrible dirty.

Lilian: Mammy, even the toilet and bathroom basin and sinks are very dirty.

Antony: There are alot of cobwebs and dust on our bedroom walls and windows.

Mother: It is very clear Mutiso that the weekly cleaning of the whole house has not been done well for a good length of time.

This is very bad. What have you been doing all these days? You're ever free when the children go to school.

Mutiso: But mama Lilian, I've been cleaning the house.

Mother: From today onwards I would like to see the house clean all the time. This means even under the beds, behind the cupboards at the far corners etc.

Mutiso: I shall do that mama Lilian.

Mother: This needs careful planning so that it does not become very tiring and in order to give every part of the house weekly attention. We are going to organise the cleaning of the house such that the weekly cleaning of different parts of the house is done on different days of the week and that by the end of the week every part has been done.

Mutiso: How can that be planned mama Lilian?

Mother: When cleaning the house, the daily cleaning of every room needs to be done. Apart from the daily cleaning of the whole house, this is the plan I would like you to follow and stick on to it.

Mondays: Weekly cleaning of the bedrooms.

Tuesdays: The family wash

Wednesdays: Toilet and bathroom and the ironing of the clothes that were washed the day before.

Thursdays: The weekly cleaning of the kitchen and the food store.

Fridays: Weekly cleaning of the living or sitting room.

Saturdays: Cleaning of the windows and gardening and special cookery.

Sundays: Rest and entertainment for the family.

RT. The family in this programme has planned the saturdays work taking into consideration the fact that the children Lilian and Antony are not in school and Baba Lilian and these can help with some of the jobs while mama Lilian does the special cooking such as baking.

Mutiso, the house helper comments on the plan that mama Lilian has just given him.

Mutiso: This looks a very good plan mama Lilian.

FX: Music.

R.T. In the cleaning of rooms, careful planning of duties needs to be done beforehand to avoid overlooking of some parts of the house or otherwise unnecessary tiredness. In order to care for the whole house properly, the three groups of cleaning i.e. daily cleaning, weekly cleaning and thorough or special cleaning must be organised properly. The daily cleaning must be organised properly. The daily cleaning that is removing of the surface dirt by sweeping and dusting must be done daily in everyroom. In addition of this, the weekly cleaning of the rooms can be distributed every other days of the week so that no day is overloaded and no part of the house is left without cleaning it. Thorough or special cleaning can be planned when need arises, and this can easily be done on any day of the week which has less work. Once such a plan is drawn out following it strictly then the whole house will have been given all the necessary attention and one will get used to the routine and therefore find it enjoyable and less tiring.

Sig Tune: 10' and fade under.

Announcer: We have come to the end of today's lesson.

Your presenter for this programme were .....

(The artistes to say their names)

Please be with us next week. Our lesson will be on Washing of flat articles. If you don't know the flat articles, never mind, your radio teacher will be with you to tell you more about it. This programme was prepared and written by Damaris Mworia of St. Paul's Primary School, Nairobi and produced by Freda Nturibi of Educational Media Service of the Kenya Institute of Education.

APPENDIX 2.

FORMATIVE EVALUATION OF HOME SCIENCE RADIO PROGRAMMES FOR UPPER PRIMARY CLASSES.

Questionaire for Upper Primary Home Science Teachers.

Please answer all the questions in this questionaire.

1. Name of School _____

2. Type of School

   category A ☐ B ☐ C ☐

3. Number of Streams: One ☐
   Two ☐
   Three ☐

4. Class currently teaching std _____

5. Total no. of the following in your class:-

   Boys _____ and Girls _____

6. Medium of instruction:

   (a) Kiswahili ☐
   (b) English ☐
   (c) Vernacular (speafy) ☐

7. Does your entire class listen to Home Science radio programmes?

   Yes ☐ No ☐

   if no, specify who does and why.

   _____

   _____

   _____

8. Do you combine classes when listening to the H/Science radio lessons?

   Yes ☐ No ☐

cont'd .....

9. If yes, which classes?

stds: _____

Total no. of listeners at the same time and place = _____

10. Have you come across any difficulties in fitting in Home Science radio lessons in your Home Science scheme of work?

yes no.

11. If yes, what are these difficulties?

(a) _____

(b) _____

(c) _____

(d) _____ etc.

12. After scheming, does your class listen to Home Science radio lessons.

(A) Every time they are in the air

(B) occassionally

(C) seldom

(D) Never

13. If you use the radio regularly what are the reasons for doing so?

(a) Improves on your teaching techniques ☐

(b) gives confidence in teaching ☐

(c) helps one to explain better ☐

(d) gives the teacher time to prepare for another lesson or attend to other important matters ☐

(e) other reasons _____

_____

_____

14. If your class seldom or never listens to the Home Science radio lessons, what are the major reasons:-

(a) No radio or batteries ☐

(b) Radio broken down ☐

(c) Poor reception ☐

(d) Radio lessons are boring and do not help at all in the teaching - learning situation ☐

(e) Time for airing is in most cases inappropriate and difficult to fit in our class programme ☐

(f) Disturbs other classes ☐

(g) Other reasons _____

_____

15. What are the parents and other fellow teachers' feeling towards the radio programmes?

(a) Useful ☐

(b) of little use and therefore can do without them ☐

16. Do you experience certain problems with your class during the Home Science radio lessons that you otherwise don't experience during other normal lessons? e.g.

(a) Noise making ☐

(b) restlessness of pupils ☐

(c) other forms of indiscipline (specify)

_____

_____

17. What action do you take incase of (16) above:-

(a) Punish the restless group ☐

(b) Punish the entire class ☐

(c) Switch off the radio and start teaching ☐

(d) others _____

_____

_____

18. When listening, does your class:-

(a) just - listen ☐

(b) listen and carry out the activities suggested by the radio teacher? ☐

19. Are enough activities suggest for both the teacher and pupils?

yes ☐ No ☐

(b) who has more activities?

Teacher ☐, Pupils ☐

(c) Have you found it possible to carry out the activities suggested by the radio teacher within the time given?

Yes ☐, No ☐

20. Are the radio voices:-

Clear ☐

Distorted ☐

Other Dejects (specify) _____

_____ _____

21. In most cases, is the content level for the class:-

(i) Too high ☐

(ii) Too low ☐

(iii) just right ☐

22. Does the programme sustain interest?

Yes ☐, No ☐

23. If yes, in what ways:-

(a) _____

(b) _____

(c) _____

(d) _____

(e) _____

24. If not, what are the major weaknesses of the programme:-

(a) _____

(b) _____

(c) _____

(d) _____

(e) _____

25. Are the support matterials e.g. teachers' guides, charts etc sent in time for broadcast?

Yes ☐ , No ☐

26. Are the Teachers' Guides:-

(a) Clear .....Yes ☐ , No ☐

(b) Give enough information ..... Yes ☐ ; No ☐

27. Do you require more support material for Home Science programmes?

Yes ☐ ; No ☐

28. After the broadcast, do you:-

(a) Revise the lesson ☐

(b) Move on to the next topic ☐

29. Do you teach the topic to be covered by the radio teacher before or after the broadcast?

(a) Before ☐

(b) After ☐

(c) Neither (a) nor (b) ☐

30. Would you asaahhome science teacher have these radio lessons taped and played during the lesson as deemed necessary or remain purely info inform of broadcasts?

(a) Taped ☐

(b) Broadcast ☐

(c) Both ☐

31. Do you feel there is need to hold an in -service course for home science teachers on how to conduct Home Science radio lessons?

Yes ☐ , No ☐

32. Make suggestions on how these Home Science radio programmes can be improved:-

(a) _____

(b) _____

(c) _____

(d) _____

(e) _____

(f) _____

Prepared by

R.K. Nguchu

PRIMARY TEACHER EDUCATION SECTION, K.I.E.

July 5th, 1981

RKN/ikn.

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